



## Request for Proposals

### *Analysis and Interpretation of Pesticides and Toxicity Monitoring Data in the Sacramento-San Joaquin Delta*

The Delta Regional Monitoring Program is requesting proposals in response to the attached request.

### Important Dates

- |              |  |
|--------------|--|
| 3/2/2018     | <b>Question Deadline:</b> Questions on the RFP should be emailed to <a href="mailto:matth@aquaticscience.org">matth@aquaticscience.org</a>                       |
| 3/9/2018     | All questions and responses will be posted online at <a href="https://sites.google.com/a/sfei.org/delta-rmp/">https://sites.google.com/a/sfei.org/delta-rmp/</a> |
| 3/16/2018    | Proposals due by 5:00 pm Pacific time. Please submit your proposals by email to <a href="mailto:matth@aquaticscience.org">matth@aquaticscience.org</a>           |
| 4/2 – 4/6/18 | Week during which interviews will be held (if determined necessary)  |
| 5/4/2018     | Proposal selection and notification  |

**Timeline for project:** 1 year after contract execution, beginning approximately May 2018.

You can expect an email confirmation that we have received your proposal soon after it is received. If you have any doubt, please email to the address above for confirmation without the attachments. Please submit your proposal as a single PDF file in an email with the subject line: Pesticides Interpretive Report Proposal.

We encourage proposals from individuals, consulting firms, nonprofit organizations, academic institutions, and other qualified parties. Preference will be given to teams that combine expertise from multiple fields of chemistry, hydrology, ecotoxicology, and environmental statistics.

Matthew Heberger, [matth@aquaticscience.org](mailto:matth@aquaticscience.org)

Program Manager, San Francisco Estuary Institute - Aquatic Science Center

## Introduction & Background

The Delta Regional Monitoring Program (Delta RMP) is a stakeholder-directed project formed to improve understanding of water quality issues in the Sacramento-San Joaquin River Delta (the Delta). The goal of the RMP is to better coordinate and design current and future monitoring activities in and around the Delta to create a cost-effective approach for providing critically needed water quality information to better inform policy and regulatory decisions of the Central Valley Regional Water Quality Control Board and other federal, state and local agencies and organizations.

The Delta RMP is managed by the **Aquatic Science Center (ASC)**, a Joint-Powers Authority housed within the nonprofit San Francisco Estuary Institute (SFEI) in Richmond, California. In addition, governance of the program is delegated to several stakeholder committees. The Delta RMP **Steering Committee (SC)** determines the overall budget, allocates program funds, tracks progress, and provides strategic direction and priorities for the Program from a manager's perspective. The **Technical Advisory Committee (TAC)** is the advisory body that provides technical advice to the Steering Committee. The TAC makes recommendations to the Steering Committee based on technical evaluation of proposed or existing program elements, and based on priorities set by the Steering Committee. The TAC is responsible for developing and revising the monitoring design based on Steering Committee direction and priorities. The **Pesticides Subcommittee** is a standing subcommittee of the TAC formed to evaluate issues related to pesticides and report findings back to the larger group. This subcommittee consists of representatives from the Steering Committee, Technical Advisory Committee and other sectors such as academia, nongovernmental organizations, government agencies, and industry.

Additional information regarding the program, including work plans and meeting summaries can be found on the Delta RMP website:

[https://www.waterboards.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/delta\\_regional\\_monitoring/](https://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/delta_regional_monitoring/).

## Analysis Needs

The Delta RMP monitored for current use pesticides (CUP) at various locations in the Delta from July 2015 to June 2017. Monitoring included chemical analyses and toxicity testing. The chemical parameters analyzed include several pesticide reporting groups, dissolved copper, and other conventional water quality parameters. Toxicity tests were performed using an algal species (*Selenastrum capricornutum*, also known as *Raphidocelis subcapitata*), invertebrates (*Ceriodaphnia dubia*, and *Hyalella azteca*), and a fish species (*Pimephales promelas*). Toxicity testing included evaluation of acute (survival) and chronic (growth, reproduction, biomass) toxicity endpoints. Monthly surface water samples were collected from 5 fixed sites representing key inflows to the Delta: Mokelumne River at New Hope Road, Sacramento River at Hood, San Joaquin River at Buckley Cove, San Joaquin River at Vernalis, and Ulatis Creek at Brown Road.

Monitoring was performed according to the Delta RMP [Quality Assurance Program Plan \(QAPP\)](#) and the Delta RMP [FY15/16 Workplan](#) and [FY16/17 Workplan](#).

The Delta RMP [Communication Plan](#) calls for a technical report summarizing the first two years of current use pesticides monitoring. This solicitation is intended to answer that call. The goals of this project are described in the following section.

## Project Goals & Objectives

The goals for the Analysis and Interpretation of Pesticides and Toxicity Monitoring Data in the Sacramento-San Joaquin Delta (Interpretive Report) are, to the extent possible using available data, answer the Delta RMP's "status and trends" questions listed below. These questions are from the Delta RMP [Monitoring Design Summary](#).

1. To what extent do pesticides contribute to observed toxicity in the Delta? (S&T1)
2. Which pesticides or degradates have the highest potential to be causing toxicity in the Delta and therefore should be the priority for monitoring and management? (S&T1.1)
3. What are the spatial and temporal extents of lethal and sublethal aquatic and sediment toxicity observed in the Delta? (S&T1.2)
4. What are the spatial/temporal distributions of concentrations of currently used pesticides identified as likely causes of observed toxicity? (S&T2)

Answering question #1 is a major goal of this Interpretive Report. In this report, the contractor should attempt to answer the question of whether, and to what extent, pesticides contribute to observed toxicity in the Delta. If there are insufficient data to answer this question, the contractor should highlight limitations in the current data that prevent conclusions from being drawn.

Answering questions #2 to #4 will inform decisions about future monitoring for pesticides and toxicity in the Delta. The Interpretive Report should show where and when pesticides and toxicity are observed, prioritize which pesticides should be monitored in the future, and describe gaps in current monitoring programs that limit answering questions #2 to #4.

The Interpretive Report should include an analysis of pesticide and toxicity data collected by the Delta RMP in addition to data collected by other programs going back to 2011. This should include, in particular, publicly-available data in the California Environmental Data Exchange Network ([CEDEN](#)) and US Geological Survey's National Water Information System ([NWIS](#)).

## Recommended Temporal and Geographic Scope for the Project

Table 1 includes a list of criteria to be considered as part of this project. The contractor may propose an expanded geographic or temporal scope if it is justified; however, the focus should remain on the Delta. The contractor may propose to not use certain publically available data in

one or more of the data sets listed in Table 1 if properly justified and agreed upon by the TAC and Steering Committee.

*Table 1. Recommended temporal and geographic criteria.*

Feature	Criteria
Temporal Extent	circa 2011–present
Data sources	<ul style="list-style-type: none"> <li>- Delta RMP (Years 1&amp;2)</li> <li>- CEDEN</li> <li>- NWIS (USGS)</li> <li>- Others as appropriate</li> </ul>
Matrices	Water column and sediment
Geographic scope	Legal Delta plus some upstream areas up to 10 miles upstream, such as : <ul style="list-style-type: none"> <li>- Sacramento River to Veteran’s bridge</li> <li>- American River</li> <li>- Smaller tributaries (Eastside, Cache/Yolo)</li> </ul>

## Project Tasks and Deliverables

The proposal for the Interpretive Report shall include a Scope of Work that elaborates on the tasks described below. The proposal should also include a schedule containing specific milestones and dates of completion, budget, and team availability. We reserve the right to work with the contractor to modify the scope before the contract is signed and work begins.

We have drafted a description of the project, outlining our minimum expectations for the report described in more detail below. We also expect the consultant will bring their creativity and expertise to the analyses.

### 1. Stakeholder engagement and input

The RMP model is based on stakeholder consultation and coordination. Overall, we expect the consultant to not only keep Delta RMP stakeholders apprised of project progress, but also to provide opportunities for our technical experts to provide input and feedback. To that end, the proposed tasks include a series of milestones and deliverables that will allow for input from the Delta RMP’s stakeholders, specifically the Technical Advisory Committee (TAC), the TAC Pesticides Subcommittee, and the Steering Committee. These can be thought of as roughly equivalent to 10%, 50%, and 90% deliverables. These are important decision points in the project where stakeholders and technical experts can become familiar with novel approaches and

methods that will be utilized in the Interpretive Report analysis and also provide feedback and direction to the consultant.

Note that meetings with stakeholder groups will be organized and facilitated by staff of the Aquatic Science Center, the program's Implementing Entity. However, the contractor will be responsible for delivering documents in advance of meetings, making presentations, being available to answer questions, and making careful note of stakeholder input. There will be an option to attend meetings in person or to present by phone and internet for consultants that are not located close to Sacramento, California.

## 2. Compilation of existing data and literature

Before attempting to answer each of the management and assessment questions stated above, the consultant should determine whether there are sufficient data to answer the question. This determination will guide the selection of methods to use in the analyses of the data and the resulting answers to the status and trends questions above.

The first milestone should be a technical memo containing a comprehensive summary of existing data that fall within the geographic boundaries and analysis time period, and existing reports that are based on the data. A component of this task includes determining data quality criteria that will be used to determine which data will be included in the analyses and explanation of any data sets excluded that meet the criteria in Table 2. The summary should include an evaluation of data quality and basic visualization (e.g., time series plots) of existing data sets meeting data quality criteria. The consultant should plan for review and feedback from technical reviewers (the Delta RMP's Technical Advisory Committee and Pesticides Subcommittee) who have significant amount of local knowledge of the Delta and historical monitoring activities.

An important interim deliverable is a database of pesticide and toxicity data that is the basis for subsequent analyses. It is important to the stakeholders of the Delta RMP that the data analysis be open and transparent, based on the inclusion of metadata, data quality criteria, and other qualifying information. This step will yield a database with appropriate metadata upon which the subsequent analyses can be based.

## 3. Determination of the appropriate analytical methods and aquatic toxicity benchmarks

The consultant shall prepare a technical memo describing proposed methods for analyzing the data. This will present a more detailed description of the proposed analyses informed by the exploratory data analysis and visualization described above. The purpose of this memo is to have a robust discussion with Delta RMP stakeholders and come to an agreement that the contractor is using appropriate methods. The memo should include a description and examples of typical outputs, in terms of tables, graphs, maps, etc. The memo should also describe statistical methods to be used including their advantages, disadvantages, and assumptions. The contractor is not expected to perform a human health or ecological risk assessment. However,

the contractor should at a minimum, compare observed pesticide concentrations to the appropriate water quality objectives, thresholds or benchmarks as a first step to evaluating whether there is a potential risk to aquatic life. To the extent feasible, the interpretation of toxicity data should evaluate the causes of toxicity, regardless of whether it is caused by pesticides.

The technical memo should be available to reviewers at least 2 weeks prior to the discussion in order to give time for them to review and provide comments. It is important that Delta RMP stakeholders are able to review proposed methods and benchmarks and give feedback.

#### 4. Draft and final interpretive report

Draft results and conclusions of the report should be submitted with sufficient time to allow for meaningful discussion and input by Delta RMP stakeholders. A proposed outline for interim milestones is presented in Table 2.

*Table 2. Tasks and deliverables to be included in the proposed Scope of Work.*

Task	Deliverable	Suggested Timeline
1. Stakeholder Engagement and Input	1. Up to 3 presentations at milestone meetings with the Delta RMP Technical Advisory Committee, Pesticide Subcommittee, and Steering Committee 2. Response to comments on drafts of the compiled data (task #2), tech memo (task #3) and interpretive report (task #4).	Ongoing based on check-in points and review period timeline
2. Data compilation and review	1. Summary of existing data and reports 2. Basic data visualizations 3. Database containing dataset for analyses	3 months
3. Analysis methods	Technical memorandum describing the data analysis methods	Draft, 5 months Final, 7 months
4. Draft and final report	Draft outline – 3 months Draft report –10 months Final report – 12 months	

## Proposal Content Instructions

### 1. Contractor Information (limit 1 page per organization)

Provide specific information concerning your organization or firm in this section. If two or more organizations are involved in a joint venture or association for this project, the proposer must clearly delineate the respective areas of authority and responsibility of each party. All contractors signing the agreement with the Delta RMP must be individually liable for completion of the entire project even when the area of authority and responsibility under the terms of the joint venture or association is limited.

### 3. Contractor Experience (limit 2 pages)

Provide a summary of organizational experience completing similar projects. The summary should be as specific as possible. Three client references with contact names, phone numbers, email addresses, and the nature of the project completed for the client are required.

### 4. Professional Team (limit 2 pages plus resumes)

Of critical importance will be the composition and availability of the team proposed to accomplish this project. The professional team should have expertise in water quality, chemistry, pesticides, hydrology, ecotoxicology, and environmental statistics. The following information should be provided in this section:

- Name and location of the office where the work is to be performed.
- List of team personnel, by discipline and position, and their location (including personnel of sub-consultants, if any).
- A table of organization for the professional team which identifies:
  - Principal-in-charge
  - Project Manager
  - Professional staff
- Resumes of the professional team that reflect their experience in the areas relevant to the Project (limit 2 pages per individual).
- A statement that the key personnel specified in the proposal are available at the commitment level specified in the proposal for the anticipated time frame of the project.

### 5. Scope of Work (limit 5 pages)

A detailed Scope of Work based on the required tasks and deliverables should be included explaining the strategy proposed for meeting the objectives of this project. Included with the Scope of Work should be a timeline of milestones and deliverables.

### 6. Cost of Services

The proposer shall include an estimated budget that will be charged for the project, not to exceed \$80,000 including labor and other direct and indirect costs. A breakdown of the budget, by task, with a detail of anticipated labor hours by professional category should also be included. A general rate schedule should also be included.

## 7. Conflict of Interest Statement

The stakeholders and managers of the Delta RMP have a strong interest in avoiding both real and perceived conflicts of interest, and ensuring that the contracted work is done in a way that is impartial and unbiased. The proposer shall include a statement on whether their organization or firm has provided services or entered into contracts in the past five years with any of the Delta RMP contributors listed in Attachment A. If your organization has had financial dealings with any of the listed organizations, include a statement on the amount of payments received, a brief description of services provided, and the approximate percentage this comprised of your organization's total revenue in that year.

## Questions & Requests for Additional Information

Questions concerning this RFP should be emailed to Matthew Heberger, Delta RMP Program Manager, at [matth@sfei.org](mailto:matth@sfei.org). Questions and/or comments regarding this RFP will be accepted until 5:00 PM, March 2, 2018. Please provide company name, address, phone number and email address if they do not appear as a signature block for your email. Inquiries and e-mail responses will be posted online at <https://sites.google.com/a/sfei.org/delta-rmp/> by March 9, 2018, or as soon thereafter as possible.

## Evaluation Procedures

Proposals will be evaluated on the following factors, which include but are not limited to: technical knowledge, feasibility, relevant experience, available resources, and planned approach to meet project completion timelines. Demonstrated experience on projects similar in nature and the quality and commitment of experienced personnel are key evaluation attributes. Since only those contractors' best meeting the requirements will be given further consideration in the selection process, it is essential that your submittal articulate the reasons that your organization should be selected. Contractors will be evaluated based on only the information provided in submitted proposals and follow-up interviews (if determined necessary). Interviews with client references may also be performed. Proposals will be evaluated by an evaluation committee of Delta RMP stakeholders. One or more of the members of the evaluation committee may also serve on the Project Oversight Committee, once it is established. If a proposal is received that meets the requirements of the RFP and is accepted by the evaluation committee, contract negotiations will be entered into between ASC and the consultant.

## General

All consultants are hereby advised that this RFP is an informal solicitation and is not a commitment or offer to enter into an agreement or engage into any competitive bidding or negotiation pursuant to any statute, ordinance, rule, or regulation.

ASC reserves the right to negotiate with any qualified source.

ASC reserves the right to reject any or all proposals for any reason or for no reason at all.

ASC reserves the right to request further information from the consultant, either in writing or orally. Such request will be addressed to that person or persons authorized by the consultant to represent the consultant.

ASC reserves the sole right to judge the consultant's representations, either written or oral.

Consultants understand and agree that submission of a proposal constitutes acknowledgement and acceptance of, and a willingness to comply with, all terms, conditions, and criteria contained in this RFP.

False, incomplete, or unresponsive statements in connection with a proposal may be sufficient cause for the rejection of the proposal. The valuation and determination of the fulfillment of the above requirement will be ASC's responsibility and its decision shall be final.

ASC reserves the right to interpret or change any provisions of this RFP at any time prior to the proposal submission date. Such interpretations or changes will be in the form of addenda to this RFP. Such addenda will become part of this RFP and may become part of any resultant contract. Such addenda will be made available to each person or organization that is known to have received this RFP. Should such addenda require additional information not previously requested, a consultant's failure to address the requirements of such addenda might result in the proposal being disqualified or ranked lower in review.

ASC reserves the sole right to evaluate and select the successful proposal. The selection process is anticipated to include an evaluation of the proposal and an interview with the top proposers. If interviews are conducted, the proposed project manager and key staff should participate.

ASC shall not in any way be liable for any costs incurred in connection with the preparation of any proposal submitted in response to this RFP.

## Attachment A – Delta RMP Contributors

Brentwood, City of

California State Water Resources Control Board

Central Valley Regional Water Quality Control Board

Ceres, City of

Colusa County

Davis, City of

Discovery Bay

East San Joaquin Water Quality Coalition  
El Dorado County  
Hughson, City of  
Ironhouse Sanitary District  
Lathrop, City of  
Lodi, City of  
Manteca, City of  
Metropolitan Water District of Southern California  
Modesto, City of  
Mountain House  
National Marine Fisheries Service  
Oakdale, City of  
Patterson, City of  
Port of Stockton  
Port of West Sacramento  
Rio Vista, City of  
Ripon, City of  
Riverbank, City of  
Rocklin, City of  
Sacramento Stormwater Quality Partnership  
Sacramento Regional County Sanitation District  
Sacramento Valley Water Quality Coalition  
San Joaquin County  
San Joaquin County and Delta Water Quality Coalition  
Stanislaus County  
State and Federal Contractors Water Agency

Stockton & San Joaquin County  
Stockton, City of  
Sutter County  
Tracy, City of  
Tracy, City of  
Turlock, City of  
US Bureau of Reclamation  
US Environmental Protection Agency, Region 9  
Vacaville, City of  
West Sacramento, City of  
Western Plant Health Association  
Westside San Joaquin River Watershed Coalition  
Woodland, City of  
Yolo County  
Yuba County